

Amendments to the Specification

Page 4, following BRIEF DESCRIPTION OF THE DRAWINGS, beginning at line 31, please amend the paragraphs as follows:

~~Figure 1 is~~ Figures 1 and 1a are the sequence listing for MC4R in pigs (SEQ ID NO:1).

"X" represents the site of the polymorphism.

Figure 2 represents a comparison of the DNA sequence between the human (SEQ ID NO:2) and the porcine (SEQ ID NO:3) MC4R gene.

Figure 3 represents a comparison of the amino acid sequence between the human (SEQ ID NO:4) and the porcine (SEQ ID NO:5) MC4R gene.

Figures 4a, 4b, ~~and 4c~~ and 4d are linkage reports for MC4R from CRI-MAP.

Figure 5 depicts partial nucleotide and amino acid sequences (SEQ ID NO:12) of the porcine MC4R gene. The amino acid translation shows an amino acid substitution at codon 298.

Figure 6 depicts multiple-alignments of the putative seventh transmembrane domain of porcine MC4R with other MCRs and GPCRs. The "*" represents the predicted sequence positions for porcine MC4R. The other amino acid sequences were obtained from the GenBank database (accession numbers P32245, P70596, P41983, P56451, P34974, P41968, P33033, Q01718, Q01726, Q28031, AF011466, P21554, P18089, P30680, P47211). The missense variant in porcine MC4R substituted amino acid N for D in the position marked with an arrow. The Asp (D) residue is highly conserved among MCRs, and the Asn (N) residue is well conserved in most other GPCRs.